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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Robert M. Best

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GRAYBEAL, JACKSON, HALEY LLP
155 - 108TH AVENUE NE
SUITE 350
BELLEVUE, WA 98004-5973

EXAMINER

PIERCE, DAMON JOSEPH

ART UNIT

PAPER NUMBER

3714

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	10/782,043		BEST, ROBERT M.	
	Examiner		Art Unit	
	DAMON PIERCE		3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 38-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 38-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 38-51 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claims include the recitations of “polygon vertex”, “transmitter”, and “receiver”, all of which are not described in the original specification.

For purposes of examination the phrase “polygon vertex data” will be interpreted as any objects displayed in the game; and the limitations “data transmitter” and “data receiver” will be interpreted as any apparatus, person, or thing that sends and receives data, since these limitations are not mentioned in the original specification. Also, the claim language of “polygon vertex” is interpreted as intended use.

3. Claims 38-51 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. Claims 38, 48, and 49 appear to claim both apparatus and the methods of using the apparatus of a processor, viewpoint and autostereoscopic display, digital data, data

transmitter and receiver, and instructions. According to MPEP 2173.05(p) claims directed to both an apparatus and a method of use are indefinite.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 38-51 are rejected under 35 U.S.C. 101 because the claims are directed to neither a “process” or a “machine” but rather embraces or overlaps two different statutory classes of invention. Invention is to be drafted so as to set forth the statutory classes of invention in the alternative only (see MPEP 2173.05(p)).

NOTE: IN VIEW OF THE REJECTION UNDER 35 U.S.C. 112, SECOND PARAGRAPH ABOVE, THE CLAIMS HAVE BEEN INTERPRETED AS BEST UNDERSTOOD FOR THE PURPOSES OF APPLYING PRIOR ART. THE CLAIMS HAVE BEEN GIVEN THEIR BROADEST REASONABLE INTERPRETATION. SPECIFICALLY THE OPERATIONAL LANGUAGE IN THE APPARATUS CLAIMS HAVE BEEN INTERPRETED AS FUNCTIONAL STATEMENTS.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 38-42, and 44-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6,544,126 to Sawano et al (Sawano) in view of US Pat. No. 5,465,175 to Woodgate et al (Woodgate).

In Reference to Claims 38, 48, 49

Sawano discloses a computer readable data storage medium (col. 13, 19-20, discloses an information storage medium such as CD, floppy disk, flash drive, or cartridge) for use with an electronic game system (Figs. 1 and 10 discloses gaming systems such as gaming console, computer, handheld devices in a network) and in which a first handheld game unit (Fig. 1, 14, discloses 1st game console) is communicatably linked to a separately housed second handheld game unit (Fig. 1, 12 discloses a linked 2nd game console. Note: gaming system language including game units are interpreted as intended use for playing a gaming storage medium on an electronic game system), said first handheld game unit (Fig. 1, 14, 1st game console) and data storage medium storing executable game program instructions (col. 13, 20-24, discloses an auxiliary program) comprising:

(a) a processor (Fig. 2, 78, discloses a CPU) and instructions (col. 6, 39-49, discloses different game cartridges which include various game programs and software) for generating polygon vertex data that represents shapes of a player-controlled 3-dimensional first simulated object moving in a first 3-dimensional simulated game space

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in response to manual operation of said first handheld game unit (Note: the processes of generating polygon vertex data and objects in the game space are interpreted as intended use for a processor. Still, col. 8, 5-9, discloses the CPU including a "3D graphics engine" which would generate and render 3D graphical representation of game objects to a player);

(b) a processor (Fig. 2, 78, discloses a CPU) and instructions (col. 6, 39-49, discloses different game cartridges which include various game programs and software) for rendering said polygon vertex data as first pixel data that represents an image of said first simulated object from a variable first viewpoint in said 3-dimensional game space and for rendering said polygon vertex data as second pixel data that represents an image of said first simulated object from a variable second viewpoint that is displaced from said first viewpoint by a variable angle in said game space (Note: the process of rendering polygon vertex and pixel data, and displaying 1st object in variable viewpoints and angles in the game space are interpreted as intended use for a processor);

(e) a data transmitter in said first handheld game unit (Fig. 2, 18, "communication port", 78, "CPU", and Fig. 1, 20, "cable" are interpreted as data sending means because the combination of game components transmit game data) and instructions (col. 6, 39-49, discloses different game cartridges which include various game programs and software) for initiating transfer of first digital data through a data transmission link (Fig. 1, 20, "cable" or in some instances an wireless network may be used to transmit data) to said second handheld game unit, said first digital data specifying variables of said first

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simulated object in said 3-dimensional game space (Note: the processes of initiating and specifying the transfer of digital data and 3-D game object variables to a 2nd game console are interpreted as intended use for the data transmitter. Still, col. 2, 56-65, discloses transferring game programs from the 1st game console to the portable device, which in this case is the 2nd game console);

(f) a data receiver in said first handheld game unit (Fig. 2, 18, "communication port", 78, "CPU", and Fig. 1, 20, "cable" are interpreted as data receiving means because the combination of game components also receives game data) and instructions (col. 6, 39-49, discloses different game cartridges which include various game programs and software) for receiving second digital data through a data transmission link from said second handheld game unit (Note: the process of receiving digital data from 2nd game console via a link is interpreted as intended use for the data receiver);

(h) a processor in said first handheld game unit (Fig. 2, 78, discloses a CPU) and instructions (col. 6, 39-49, discloses different game cartridges which include various game programs and software) for rendering said polygon vertex data as third and fourth pixel data that represent images of said second simulated object moving in accordance with said received second digital data and rendered from corresponding variable third and fourth viewpoints in said 3-dimensional game space, said variable fourth viewpoint being displaced from said first, second, and third viewpoints by variable angles in said 3-dimensional game space (Note: the process of rendering polygon vertex and pixel

data, and displaying a 2nd object in variable viewpoints and angles in the game space are interpreted as intended use for a processor);

(j) wherein said first simulated object controlled by manual operation of said first handheld game unit and said second simulated object controlled by manual operation of said second handheld game unit (col. 15, 38-40, discloses a single game being played on a plurality of devices; therefore, when a plurality of players are playing the same game on different gaming devices, each player object is controlled according to commands given per respective controller unit).

However, Sawano fails to disclose the following elements:

(c) said variable angle varying in response to manual operation of said first handheld game unit such that said first and second pixel data simulate player-controlled variable viewing depth (stimulate depth of game objects);

(d) a first autostereoscopic discrete display device (3D display screen w/o special headgear or glasses such as lenticular lenses or parallax barrier) that displays said first and second pixel data as corresponding left and right interlaced images for stereoscopic viewing (3-D images with depth);

(g) said second digital data specifying variables of a player-controlled second simulated object moving in response to manual operation of said second handheld game unit (Note: the process of specifying variables of 3-D game object based on input from 2nd game console is interpreted as intended use in the autostereoscopic display) for autostereoscopic display on a second discrete display device in said second handheld game unit (display 3-D game objects on 2nd 3D display in 2nd game console);

(i) said first autostereoscopic discrete display device in said first handheld game unit (3-D display in 1st game console) displaying said third and fourth pixel data as corresponding left and right interlaced images of said second simulated object moving in response to manual operation of said second handheld game unit (1st game console also displays a 2nd 3-D game object based on game commands of second game console); and

(j) wherein 1st and 2nd objects are both displayed autostereoscopically on said first and second handheld game units from different viewpoints (both 1st and 2nd 3-D game objects are displayed on both 3-D displays).

In regards to elements (c), (d), (g), and (i), Woodgate discloses an autostereoscopic display device (see Abstract) in order to provide observers with 3D images (col. 2, 43-51). Woodgate provides motivation to use an autostereoscopic display device in video games (col. 2, 50-51). Note: an autostereoscopic display inherently displays images having varying angle, viewpoints, and depths.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the three-dimensional gaming units of Sawano with autostereoscopic displays in order to enhance game players' 3-D viewing experience.

In Reference to Claim 39

Sawano discloses the game system of claim 38, wherein said processors in said first handheld game unit are the same processor (Fig. 1, 78, the "CPU" is the same processor).

In Reference to Claim 40

Sawano discloses the game system of claim 38, wherein said processors in said first handheld game unit comprise a first processor (Fig. 1, 78, the “CPU”) except a graphics coprocessor.

Sawano discloses a 3D graphics engine (col. 8, 5-6, which would control the graphics processing). It is well known in the art that another processor or gaming component can be implemented in a gaming device in order to assist in processing game graphics.

Therefore, it would have been obvious at the time of the invention to modify the gaming device of Sawano with an extra processor in order to increase gaming speed and provide the gaming system with more processing power in order to provide game users with rapid graphical game interfaces.

In Reference to Claim 41

Sawano discloses the game system of claim 38, with a processor (Fig. 2, 78, discloses a CPU) except wherein transparency of said parallax barrier is electrically switchable monoscopic and stereoscopic displays.

Woodgate discloses wherein transparency of said parallax barrier (col. 5, 38-39) is electrically switchable monoscopic and stereoscopic displays (col. 2, 50-51, discloses 3D and 2D presentation). Woodgae has motivation to use parallax barrier in video games.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the three dimension video gaming

system of Sawano with a parallax barrier display of Woodgate in order to enhance game players' 3-D viewing experience.

In Reference to Claim 42

Woodgate discloses the game system of claim 38, wherein said discrete display device comprises a lenticular optic device (see Abstract, "lenticular screen").

In Reference to Claim 44

Sawano discloses the game system of claim 38, further comprising a manually operable control device in said first handheld game unit that generates control data that causes said first simulated object to move in a sequence of 3-dimensional spatial coordinates in said game space, wherein said control device is any from the group comprising: touchpad, touchscreen, joystick, direction switch, motion sensor, and a combination thereof (col. 4, 1-21, discloses "manipulating controls" in order to move character in game space).

In Reference to Claim 45

Sawano discloses the game system of claim 38, further comprising a motion sensor for manual player-controlled operation of said first handheld game unit (col. 4, 1-21, discloses "manipulating controls" which inherently contain sensors that detect movement as made by a game player).

In Reference to Claim 46

Sawano discloses the game system of claim 38, wherein said discrete display device is a liquid crystal display (LCD) device (col. 5, line 65, discloses an "LCD" screen).

In Reference to Claim 47

Sawano discloses the game system of claim 38, wherein said variables specified by said second digital data are from the group consisting of 3-dimensional coordinates of said first simulated object, data identifying said first simulated object, data representing a 3-dimensional direction of motion of said first simulated object, and data identifying a predetermined animated action of said first simulated object (col. 15, 38-40, when a plurality of players are playing the same game on different game consoles data sent and received from one game console to the other would inherently include game objects' coordinates, identification, and movement data in order to recognize each distinct player character every respective action performed within the game space).

In Reference to Claim 50

Sawano discloses the data storage medium of claim 49, wherein said data storage medium is from the group comprising: an optically coded medium, a semiconductor memory, and a magnetic data storage medium (col. 24-29, discloses different types of storage devices).

In Reference to Claim 51

Sawano discloses the data storage medium of claim 49, wherein said data storage medium is a writable data memory into which said game program

instructions are downloaded from a separately housed system (col. 24-29, discloses different storage device that are separate from game console).

8. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6,544,126 to Sawano et al (Sawano) in view of US Pat. No. 5,465,175 to Woodgate et al (Woodgate) and further in view of US Pat. No. 6,139,433 to Miyamoto et al (Miyamoto).

In Reference to Claim 43

Sawano and Woodgate discloses the game system of claim 38, except wherein said first and second viewpoints are displaced by a variable player-controlled angle and said first simulated object is rendered with a corresponding size to simulate player-controlled viewing depth.

Miyamoto discloses first and second viewpoints are displaced by a variable player-controlled angle (Abstract, discloses camera angle and point of view control features, where different viewpoint angles are controlled by player using his controller and preprogrammed commands as a player character moves in game space) and said first simulated object is rendered with a corresponding size to simulate player-controlled viewing depth (Abstract, discloses camera perspective which allows the player to use his controller to move in or pull back which changes game object's depth as seen by player). Sawano and Miyamoto both discloses video game system that displaying three dimensional objects.

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the gaming system of Sawano with the player controllable viewpoint capabilities of Miyomoto in order to add more excitement and enjoyment to playing a video game.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Taki et al (US Pat. #5,690,551) has been included because video gaming system including parallax and stereoscopic displays are disclosed; and Donnelly (US Pat. #7,256,779) has been included because a gaming system having three dimensional images with varying depth is disclosed.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAMON PIERCE whose telephone number is (571)270-1997. The examiner can normally be reached on Mon - Friday 8:00am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hotaling can be reached on 571-272-4437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert E Pezzuto/

Supervisory Patent Examiner, Art Unit 3714

DJP